

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A method for producing vanillin in cultured *Vanilla planifolia*, which comprises:
- a) providing a tissue culture of said *Vanilla planifolia*; and
 - b) supplementing the culture with a compound selected from the group consisting of malic acid at a concentration of at least about 0.01% by weight of the culture medium, 3,4-dihydroxybenzaldehyde, a combination of malic acid and 3,4-dihydroxybenzaldehyde, and glycosylated lysozyme, in an amount effective to result in the vanillin production in the cultured *Vanilla planifolia*.
2. (Original) The method of claim 1, wherein the tissue culture is an embryo culture.
3. (Original) The method of claim 1, wherein the culture is supplemented with malic acid at a concentration of between about 0.01% and 5% by weight of the culture medium.
4. (Original) The method of claim 3, wherein the culture is subjected to mechanical shear stress for 21 days, followed by addition of the malic acid at a concentration of between about 1% and 3% by weight of the culture medium.
5. (Previously Amended) The method of claim 1, wherein the culture is supplemented with 3,4-dihydroxybenzaldehyde at a concentration of between about 0.1 and 5 mM.
6. (Previously Amended) The method of claim 3, wherein the culture is further supplemented with about 0.01 to about 5% by weight of a compound selected from the group consisting of succinic acid, oxaloacetic acid, citric acid and pyruvic acid.
7. (Previously Amended) The method of claim 1, wherein the culture is supplemented with about 1 to about 100 µg/ml of glycosylated lysozyme.

8. (Canceled)

9. (Canceled)

10. (Cancelled)

11 – 30. (Canceled)

31. (Currently Amended) A cell culture comprising *Vanilla planifolia* cells in a culture medium supplemented with an elicitor of vanillin synthesis selected from the group consisting of malic acid, 3,4-dihydroxybenzaldehyde, a combination of malic acid and 3,4-dihydroxybenzaldehyde, and glycosylated lysozyme, wherein, after 15 days in culture, the cell culture produces at least twice as much vanillin as ~~cells cultured~~ a cell culture after 15 days in culture under equivalent conditions, ~~but which were in a culture medium which was~~ not supplemented with the elicitor.

32. (Currently Amended) The cell culture of claim 31, which, at 15 days in culture, produces at least ten times as much vanillin as ~~cells cultured~~ a cell culture after 15 days in culture under equivalent conditions, ~~but which were in a culture medium which was~~ not supplemented with the elicitor.

33. (Original) The cell culture of claim 31, wherein the cells are embryo cells.

34. (Original) The cell culture of claim 31, wherein the cells are root cells.

35 – 40. (Canceled)

41. (New) A cell culture medium for the production of vanillin in cultured *Vanilla planifolia* cells comprising a cell culture medium supplemented with a compound selected from the group consisting of malic acid at a concentration of at least about 0.01% by weight of the culture medium, 3,4-dihydroxybenzaldehyde, a combination of malic acid and 3,4-

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dihydroxybenzaldehyde, and glycosylated lysozyme, in an amount effective to result in the vanillin production in the cultured *Vanilla planifolia*.

42. (New) The cell culture medium of claim 41 which provides an at least about two-fold or more increase in the production of vanillin compared to a culture medium which is not supplemented.

43. (New) The cell culture medium of claim 41 which provides an at least about ten-fold or more increase in the production of vanillin compared to a culture medium which is not supplemented.
